

**The Role of Family Characteristics in Shaping Educational Mobility:
Mediators or Moderators of Class and Race?**

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ABSTRACT

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(Under the direction of Dr. Lisa Pearce)

This study examines the relationship between ascribed characteristics such as socioeconomic status and race, family practices, and educational mobility. I analyze data from the National Longitudinal Study of Youth (NLSY79) to investigate the relationship between cultural and human capital, parent-child interaction styles, family togetherness, and the educational attainment of youth whose parents never attended college. Prior research suggests that family structure and certain key family practices are positively related to college attendance. I include a broader set of family practices to investigate whether they mitigate the relative influence of socioeconomic status and race on college attendance *or* whether they interact with socioeconomic status and race to produce differential effects. I show that family practices and socioeconomic status are related to college enrollment and selectivity of postsecondary institution. Additionally, I find that family context moderates the relative power of social and cultural capital in providing access to upward educational mobility.

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CHAPTER I

INTRODUCTION

Postsecondary education has become increasingly important to a young person's future labor market outcomes. The gap between wages earned by college and non-college educated individuals has grown over time, beginning in the 1970s (McCall 2000; Rumberger and Thomas 1993), and opportunities in the job market are also affected by college attendance (Kingston and Smart 1991). Type of college attended also has implications for occupational status and income (Monk-Turner 1988), partially due to low transfer rates from two year to four year colleges (Whitaker and Pascarella 1994). For young people who elect to attend four year colleges, the selectivity of the college they choose will have an impact on their future earnings, job satisfaction and participation in civic life (Bowen and Bok 1998; Loury and Garman 1995). Additionally, as post-secondary education becomes a normative transitional phase in the United States, bridging high school and the workforce, job availability for high school graduates is dwindling. In the fall of 2002, 65.2% of all 16 to 24 year olds who had completed their secondary degree¹ in the preceding twelve months, enrolled in college within a year of completing this degree. Over 16 million people enrolled in degree-granting colleges and universities in 2002, and this figure rose steadily in subsequent years (NCES 2004).

While college attendance has become commonplace, it is far from ubiquitous. Prior research suggests that college attendance remains stratified by socioeconomic status, race, and gender (Kao and Thompson 2003; Plank and Jordan 2001; Baker and Vélez 1996;

¹ Includes high school graduates and GED earners.

Persell, Catsambis, and Cookson 1992), as does selectivity of post-secondary institution (Karen 2002; Davies and Guppy 1997; Hearn 1984, 1991) and type of college attended (Baker and Vélez 1996). Parent's education is particularly important; in 1999, 82% of high school graduates whose parents had completed at least a four-year college degree enrolled in college in the following year, compared to 54% of those whose parents had attained only a high school degree, and 36% of those whose parents never graduated high school (NCES 2001). Additionally, comparative studies of mobility have suggested that while rates of upward mobility have been higher in the United States than in other industrialized nations in the past, this trend has been disappearing since the 1970s (Erikson and Goldthorpe 1992; Ferrie 2005). Income inequality is also greater in the United States than in many European nations (Gangle 2005; Bjorklund and Jantti 1997; Atkinson 1995). The very poorest members of society, particularly Black youth, are increasingly unlikely to experience upward mobility (Corcoran 1995). For this reason, it is important to examine the factors that may contribute to academic achievement among disadvantaged youth.

In general, evidence has suggested that family practices such as parental involvement in schooling (Plank and Jordan 2001; Catsambis 2001), parental educational encouragement (Teachman 1987; Cohen 1987; Catsambis 2001), provision of cultural resources within the home (Davies and Guppy 1997; Kalmijn and Kraaykamp 1996; DiMaggio and Mohr 1985) and parent-child interaction styles (Guo and Harris 2000) have a strong impact on children's educational attainment. Additionally, Amato and Fowler (2002) found that high levels of parental support and monitoring, along with avoidance of harsh punishment, resulted in optimum child behavioral, academic, and emotional outcomes, regardless of social background or other family characteristics. Lacking, however, is a more comprehensive

examination of family practices and their relationship to college enrollment, type of college, and selectivity, especially for students who are at an initial disadvantage, due to low parental educational achievement. This study will fill that gap by examining the intersection of race/ethnicity, socioeconomic status, and family practices such as parental cultivation of cultural and human capital, parent-child interaction styles, and time spent in shared family activities on whether and where young people whose parents never attended college do so themselves.

Family Life and Education

Parental cultivation of cultural and human capital, parent-child interaction styles, and time spent in shared family activities are not the only family practices that matter for the educational futures of youth, but they are three of the most important. Cultural capital (Bourdieu 1984) takes the form of symbolic markers, which can be utilized successfully by members of a social class to gain access to certain benefits. In schools, cultural knowledge may be rewarded directly as a form of academic competence, or it may make the transition into schooling easier, through familiarity with expected school behaviors (Lamont and Lareau 1988). For example, exposure to books and newspapers in the home may signal the importance of reading to young people, as well as improve their reading competence. Human capital (Coleman 1988), on the other hand, consists of skills and knowledge a young person gains over time. While schools contribute greatly to this resource, parental cultivation of human capital in the form of additional lessons or extracurricular activities will provide additional competencies and enhance a young person's academic opportunities.

Parents are the primary socializing agent of young children. As they grow older, peers, neighborhood, and the schools will no doubt impact students, but it is the family that provides this initial socialization. Therefore, it is important to examine parent-child interaction styles. Parents who converse with their children about important issues, and listen to their opinions provide models of adult behavior. Young people who grow up in what I will call a *democratic family* environment gain experience in contributing to adult interactions, and may feel more confident speaking with adults in other settings. The skills learned from these conversations form a portion of a child's social capital (Coleman 1988). Additionally, this contact with parents provides more opportunities to transmit other forms of social capital from parent to child.

Finally, time spent in family activities is expected to benefit young people. Increased time with parents will aid in the intergenerational transfer of social and cultural capital, which may benefit youth in the manner outlined above. Additionally, these experiences can influence a child directly, through generating a strong parent-child bond. The activities need not be of any particular kind—playing games, shopping together, or attending movies may strengthen a parent-child relationship. Particularly for disadvantaged youth, strong intergenerational ties may be useful in negating some peer influences. In one study of the influence of delinquent peers, Warr (1993) found that a strong parent-child bond can prevent the formation of such friendships, while time spent with parents will mitigate the influence of these peers.

Class and Family Life

Numerous studies have attested to the differences in parenting techniques and family structure across social classes (Lareau 2002; 2003; Xiao 2000; Bianchi and Robinson 1997; Alwin 1988). Some studies have indicated that working class and poor families are more likely to value conformity and obedience, as opposed to the middle class values of autonomy and tolerance (Xiao 2000; Alwin 1988). Additionally, parents with more education are more likely to limit activities such as television watching, and encourage academic pursuits, such as reading (Bianchi and Robinson 1997). More recently, Lareau (2002; 2003) has proposed a binary division of parenting techniques that she suggests has salience in examining the socioeconomic status of American families. Lareau argues that middle class parents differ from working class and poor parents in their understanding of the role of childhood in relation to adulthood, and that these outlooks are influenced by their experiences with work. For middle class parents, work is a pleasurable pursuit, and forms a large part of their identity. Therefore, they see childhood as a time to accrue relevant skills for adulthood. This approach is characterized as “concerted cultivation,” and is typified by investment in children’s skills and talents (often through participation in organized sports or other activities), the use of reasoning in family decision-making and discipline, and a knowledgeable attitude toward navigating institutional barriers successfully in which children are taught a sense of entitlement. Lareau refers to entitlement as an attitude, cultivated in children of middle class parents, of expecting attention from adults and demanding individualized resources or considerations from institutions such as schools or medical professionals. Social capital is gained by access to powerful individuals and institutions, as well as by experience in dealing with these people and institutions. Human

capital is garnered by learning skills such as leadership, teamwork, and artistic abilities (Coleman 1988). These forms of capital, as their nomenclature suggests, may then be invested for further economic, social, and cultural gain.

Working class and poor parents, on the other hand, do not have access to these social and cultural resources. Lareau (2002; 2003) argues that they see work as a burden, and thus their understanding of childhood is one of free time before the difficulties of adulthood intrude. Therefore, Lareau suggests that working class and poor families exhibit an approach of “natural growth” toward child-rearing. Natural growth is characterized by a deeper divide between childhood and adulthood. Children are not enrolled in as many activities or expected to develop individualized skills or talents. Additionally, natural growth childrearing consists of involvement of the children in extended family relations, child leisure time, directive-oriented discipline and interaction styles, and a developing attitude of constraint on the part of the child. Constraint is characterized by discomfort in demanding attention from adults and negotiating with institutions, and may be developed through discipline-oriented parenting in disadvantaged families (Xiao 2000; Alwin 1988).

Lareau’s analysis is important for understanding broad differences between upper middle class and working or lower class families. However, parenting practices are not uniformly distributed across socioeconomic classes. Poor families may employ some of the same strategies that more advantaged families do, with differential results. Indeed, although one of Lareau’s primary distinctions between concerted cultivation and natural growth was the number of structured activities a young person participated in, several of her lower or working class families enrolled their children in activities (see Lareau 2003, pp.283-284). Although these activities were more likely to revolve around religious institutions, they

demonstrated the desire and capability of some disadvantaged families to share the concerted cultivation approach of middle class families. It is important, therefore, to examine the use and success or failure of these parenting practices for disadvantaged youth. Recently, scholars of the family have called for a greater collaboration between theory and empirical research (O'Brien 2005) and the conceptualization of family as a context for shaping the meaning ascribed to particular educational and cultural resources (Entwisle, Alexander and Olson 2005; Lareau and Horvat 1999; and Roscigno and Ainsworth-Darnell 1999). These authors suggest that models of youth outcomes which merely "control for" indicators of cultural and social capital may miss some of the dynamic processes occurring between families and schools.

Race and Family Life

Social class is not the only culturally relevant correlate of family structure. Racial differences may also arise in regards to which parenting practices are considered appropriate. For example, one study found that Black parents were more likely to emphasize obedience and school performance, regardless of social class, while White parents were more likely to value their children's happiness (Hill and Sprague 1999). The same researchers found that class and race often interact. For example, while Black parents were more likely to use reasoning instead of taking away privileges overall, this difference did not persist in upper-middle class families, where White parents were far more likely to use reasoning strategies. This suggests important racial and ethnic differences between families of the same social class, as opposed to Lareau's (2003) assertion that social class is foremost in understanding parenting differences. Some researchers have also pointed to cultural differences in the

acceptance of physical punishment as an appropriate parenting tool, pointing out the Black families are more likely to use this parenting strategy, and may be chastised for this practice by certain social agencies (Mosby, Rawls, Meehan, Mays, and Pettinari 1999).

Even when Black and White families employ similar strategies of action, there is evidence that they benefit differentially. For example, Roscigno and Ainsworth-Darnell (1999) found that Black youth gained fewer advantages in comparison to Whites from various educational and cultural resources. The authors found that this was partially explained by teachers' assessments of their behavior in the classroom and willingness to learn, indicating that stereotypes continue to play a powerful role in conditioning Black youth educational outcomes. Additionally, prior research on the relationship between parent-adolescent relationships and educational outcomes has found that parenting techniques are often differentially successful for Whites and Blacks which may be explained by peer group influences (see Steinberg 2001). Finally, Entwisle, Alexander, and Olson (2005) provided evidence that Blacks and Whites who share similar educational characteristics at a young age often differ in their long-term educational trajectories.

Implications for Class and Race Differences

It is reasonable to suggest that youth whose parents have never attended college may not adequately represent the full social class spectrum. And yet this study examines the assertion that there are class-based differences in family practices which are salient predictors of academic achievement, even for disadvantaged youth. Mobility studies often point to similar characteristics across racial and social class groupings as important for academic success (Magnuson, Duncan, and Kalil 2003). There is reason to believe, therefore, that “middle

class” family practices may in fact be employed *across* social class divisions. Individuals in the United States experience a moderate amount of upward mobility (Breen and Jonsson 2005), which is most often facilitated through increased levels of educational attainment. Yet for the poorest members of society, and Black families in particular, intergenerational poverty is persistent (see Corcoran 1995). This suggests an opportunity divide, in which mobility is increasingly likely for those with relatively higher income and for White young people, even among disadvantaged youth.

If race and socioeconomic status are associated with particular family practices, it is reasonable to assume that they will differentially shape young people’s academic success. An attitude of constraint, for example, may result in young people being less willing to challenge teachers and schools and to ask for special considerations for their children. Alternatively, a sense of entitlement and a willingness to engage educational institutions will advantage families who take the concerted cultivation approach. Class placement, admittance into gifted programs, and other school practices are regularly negotiated by members of the middle class for the benefit of their children (Lareau 2002; 2003). Many working class and poor families may feel unqualified to question these decisions. Additionally, when their children are ready to apply for college, families exhibiting an attitude of constraint may be less likely to request information or services, and less likely to be involved in parental social networks that provide information about this process. These divergent understandings of the role of childhood and adulthood, therefore, shape the backbone of parenting practices that families employ and they are expected to correlate to children’s educational attainment. One possible hypothesis, therefore, is that educational achievement is associated with particular parenting styles and family resources, which are more often found within White middle class families,

but are shared to varying degrees across social classes. This hypothesis reflects the notion of a “best practice” of parenting strategies and family structure.

Alternatively, as Swidler (1986) argues, individuals may use “strategies of action” to get what they desire, and these strategies are shaped by their cultural context. Poor families may develop strategies of action divergent from the schools at which their children attend. Even when they share practices with members of the middle class, however, the meaning of these practices may differ (Entwisle, Alexander and Olson 2005; O’Brien 2005; Lareau and Horvat 1999; and Roscigno and Ainsworth-Darnell 1999). Therefore, even if two economically diverse families employ the same parenting techniques, the outcome may differ due to the meaning that is ascribed to them within the family. To give an example, if a White and a Black child both visit a museum with their parents, they can both report museum attendance in a survey. However, if the White child’s parents expose him or her to the European paintings, and encourage their child to learn the artists’ names, while the Black child’s parents take him or her to the Egyptian exhibits and teach their child about his or her ancestry, the meaning ascribed to museum attendance will differ. The White child may then be able to use his or her knowledge in conversations with adults, as well as academically in some settings. The Black child, while having an equal *amount* of cultural capital, will nonetheless find fewer social outlets to demonstrate this knowledge, and to have it be appreciated. Therefore, it is possible that the meaning ascribed to cultural and social capital, parenting style, and time spent in shared family activities may differ, depending on race/ethnicity and socioeconomic status. These differences may then have an important impact on a child’s educational attainment.

CHAPTER II

RESEARCH QUESTIONS

This study approaches educational attainment from two vantage points: recognition of family's central role in structuring a young person's opportunities for growth and socialization, and the importance of college enrollment, type of college, and selectivity as measures of educational attainment. There are three characteristics of family that will be discussed here: family structure (i.e., single or two-parent family, teen or adult mother); family practices, which refer to children's exposure to cultural and human capital, parenting style, and time spent in family activities; and family context, or the socioeconomic characteristics of family life that theoretically moderate the success or failure of particular family practices.

There are a large number of family practices which might be associated with young people's college enrollment. For this study, however, I have tried to utilize the concepts of concerted cultivation (Lareau 2002; 2003), social and cultural capital (Bourdieu 1984), and human capital (Coleman 1988), as theoretically relevant not only to academic achievement, but also race/ethnicity and socioeconomic status. I am particularly interested in how these concepts interact with race/ethnicity, parent's education, income, and family structure to produce education outcomes in disadvantaged youth, as defined as young people whose parents completed no more than a high school degree. While limiting my sample to educationally disadvantaged youth may limit my ability to speak broadly about social class, class differentiation remains in the sample in terms of parent's relative educational

attainment and income. In my analysis, I juxtapose two potential scenarios: 1) that exposure to cultural and human capital, parenting style, and increased time spent in shared family activities will mitigate the relationship between both socio-economic status and race and college choice *or* 2) that these family practices will interact *with* socioeconomic status and race/ethnicity to produce different relationships between these factors and college choice. Completion of a college degree will not be included within this model. Instead, I will focus on the odds that a youth will attend college at all, what type of institution they will attend, and the selectivity of the college chosen, where applicable.

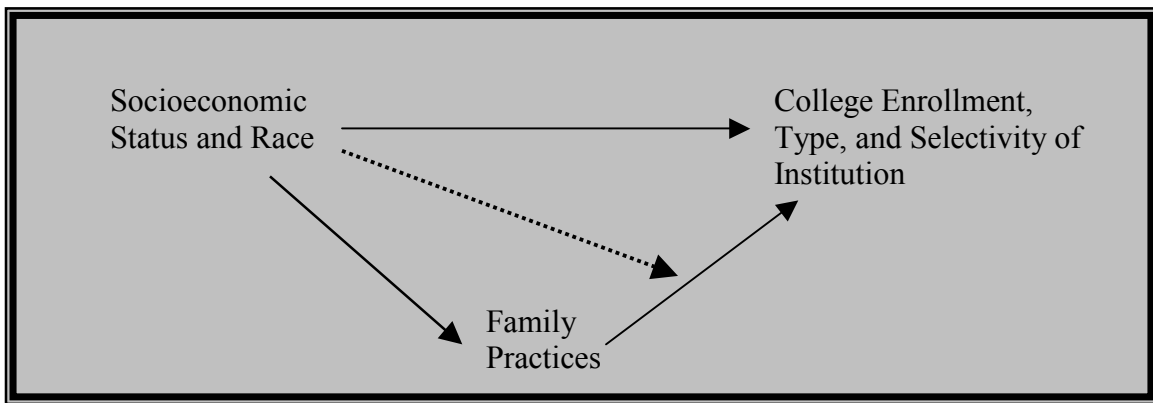


Figure 1: Possible Relationships between Socioeconomic Status and Race, Family Characteristics, and College Outcomes

CHAPTER III

DATA & MEASURES

Data for this study comes from the NLSY79 Children and Young Adults, a survey of the biological children of the women in the National Longitudinal Survey of Youth, 1979 (NLSY79). The NLSY79 was conducted annually from 1979 until 1994, and biannually after that time. This panel survey consists of a nationally representative sample of 12,686 youth, ages 14 through 21 as of December 31, 1978. In 1986, the NLSY79 launched a second phase of this project, in which they began to follow the children of all mothers in the original cohort. At this time there were 5,255 children of NLSY79 mothers. By 2002, the last year from which this data was taken, over eleven thousand children had been identified as being born to the women of the original cohort². Data for both NLSY cohorts was collected primarily through face-to-face interviews, although respondents were also given self-report surveys to fill out, and occasional shorter phone surveys were conducted. The response rates for mothers and children vary each year, generally remaining above 80%.

As the children in this sample age, they are moved into the NLSY79 Young Adult sample, beginning at age fifteen. The oldest individual from the NLSY79 Young Adult cohort was 31 in 2002, and more children were being born into the Children cohort the same year. For this study, I am interested in educational mobility as measured by college enrollment. In order to capture this information, I will limit my sample to respondents aged 18 through 31 who are

² This study includes all children born to NLSY79 mothers, and thus introduces the issue of siblings in the data.

I will therefore use clustering to control for the presence of siblings.

not enrolled in grades 1 through 12 in 2002, and whose parents have never attended a postsecondary institution. After eliminating respondents who did not report whether or not they attended college, and those who are missing data for the relative family characteristic variables, I have an analytic sample size of 1,399³.

Due to the generational nature of the NLSY79 Young Adult sample, some caution must be used in asserting the representativeness of this data and its results. The oldest children in the second generation have been born to the youngest mothers. Therefore, as the NLSY79 Young Adult sample ages, it will become increasingly representative. In the 2002 data, however, the sample still contains a higher percentage of children born to young mothers than in future years. For example, mothers of the youngest age group for this study (18 year olds) reported an average age of 22.52 at time of birth. Among young adults ages 25 and above as of 2002, however, the average age of mothers at time of birth was 16.96. The average age of mothers for the entire analytic sample, as reported in Table 1, is 19.21. The average age of mothers for the entire NLSY79 Children and Young Adult sample (for which data exists) is 25.01. Thus, the sample utilized in this paper will consist, on average, of

³ The reduction in sample size was due to four primary groups of respondents: respondents who were not yet 18 or had not exited secondary schooling (n=7376); those whose parents had attended at least one year of college (n=1085); those for whom college attendance information is missing (n=1046); and those who had not responded at all to the Child Self-Administered Supplement from ages 11 to 14 (n=434), possibly due to inability to contact those children, refusal of parents to allow their children to complete the survey, or refusal on the part of the child. Missing college information is due, in most cases, to losing a survey respondent over time. College attendance was compiled by the NLSY staff from information regarding highest grade attended, highest grade completed, and a direct college attendance question. I cross-checked this variable with high school graduation and secondary school enrollment information. Therefore, item non-response is unlikely to be related to missing values for the college enrollment variable.

families with younger mothers, and therefore lower socioeconomic statuses⁴, than the entire survey population. I have reduced the bias somewhat, however, by limiting my sample to parents who have completed no more than a high school degree.

Dependent Variables

Three aspects of college enrollment will be evaluated here. The first dependent variable will be a dichotomous indicator of whether the youth ever attended college by the time he or she was interviewed in 2002 (coded 1) or not (coded 0). This variable is coded using a variable constructed by the NLSY (“Has respondent ever attended college?”). For each case, the latest year for which this information was available was captured, from 1994 to 2002. As a check on the accuracy of this variable, any cases in which the respondents were reported enrolled in grades 1 through 12 in 2002, and whose highest grade completed was 1 through 12, were coded as not having enrolled in college. About 38% of the sample attended college at some point. The second dependent variable I use is a dichotomous indicator for those who did attend college, whether they first attended a two (coded 0) or four (coded 1) year institution, with 43% of those that attended college at all first attending a four year college or university. Finally, my third dependent variable is institutional selectivity, as measured by a midpoint SAT score of all incoming freshman for each institution. These selectivity scores

⁴ For example, the average net family income for the analytic sample was \$25,285.32 while the average net family income for the entire sample of households for which we have data is \$39,511.92.

were obtained by merging data from the Integrated Postsecondary Education Data System (IPEDS) with NLSY79 data⁵.

Independent Variables⁶

The following variables measure exposure to cultural capital within the home and cultivation of children's human capital, as reported by mothers of the NLSY79 Children cohort when the respondents were between 11 and 14 years old⁷. The measures of cultural capital report the number of books the child has in the home (none, 1 to 9, 10 to 19, or more than 19), whether the family receives a daily newspaper, and whether there is a musical instrument in the home that the child may use. Opportunity to cultivate human capital is measured by whether the child gets any special lessons or activities. Mean values, standard deviation, and range for these variables and all others used in my analysis are available in

⁵ Available SAT score information from IPEDS offers the 25th and 75th percentiles of admitted freshman in the math and verbal sections. I choose the midpoint of these measures and summed them for an overall score. Some schools listed only ACT composite scores. For these schools, I utilized the College Board's ACT to SAT score converter. Missing data was imputed using the midpoint SAT score from their assigned stratification cell from HERI (Higher Education Research Institute). The IPEDS and HERI measures were correlated at .765.

⁶ See Appendix A for diagrams of family measures.

⁷ In order to pool information about respondents when they were between the ages of 11 and 14, I used age of the respondent in months at time of the interview. In order to create one variable representing whether a respondent's household received a daily newspaper, I ran a program to take the answer to this survey question from the year in which the respondent was between the ages of 132 and 168 in months.

Table 1. For these measures, each question will be included in the analysis separately, because of the lack of consistency across questions and answers⁸.

⁸ Interitem covariance was low, with an alpha level of 0.447. Therefore, creating a standardized score from these measures would not have been useful. Prior research (Magnuson, Duncan, and Kalil 2003) suggests that, even when using the entire NLSY79 HOME scale, reliability declines as children age. For adolescents over age 10, they found a Cronbach's alpha of .62 for the entire scale.

Table 1: Univariate Descriptive Statistics, N = 1399

Variable	Mean	Std Deviation	Min	Max
<i>Educational Attainment</i>				
Ever Enrolled in College	0.379	0.485	0	1
Enrolled in Four Year College (N=475)	0.434	0.496	0	1
Selectivity Score (N=197)	1014.77	105.88	760	1325
<i>Demographic/Family Background</i>				
Mother HS Graduate	0.602	0.490	0	1
Father HS Graduate	0.542	0.498	0	1
Father Education Missing	0.144	0.352	0	1
Family Income, year	25,194.87	50,167.38	250.00	1,057,448.00
Family Income Logged, year	9.730	0.875	5.521	13.871
Female	0.495	0.500	0	1
White	0.311	0.463	0	1
Black	0.398	0.490	0	1
Hispanic	0.242	0.429	0	1
Other Race/Ethnicity	0.049	0.215	0	1
Presence of Father in Home, age 12	0.385	0.487	0	1
Siblings	2.157	1.464	0	10
Age of Mother at Child's Birth	19.212	2.379	13	26
<i>Family Cultural and Human Capital</i>				
Number of Books in Home	3.041	0.957	1	4
Musical Instrument in Home	0.365	0.482	0	1
Receive Daily Newspaper in Home	0.398	0.490	0	1
Child Enrolled in Activities	0.529	0.499	0	1
<i>Parent-Child Interaction Style</i>				
Parents Listen to Child's Side Hardly Ever	0.226	0.418	0	1
Parents Listen to Child's Side Sometimes	0.431	0.495	0	1
Parents Listen to Child's Side Often	0.343	0.475	0	1
Parents Talk over Imp. Decisions Hardly Ever	0.177	0.381	0	1
Parents Talk over Imp. Decisions Sometimes	0.445	0.497	0	1
Parents Talk over Imp. Decisions Often	0.379	0.485	0	1
<i>Family Togetherness</i>				
Past Month Movies?	0.324	0.468	0	1
Past Month Dinner?	0.593	0.491	0	1
Past Month Shop?	0.820	0.384	0	1
Past Month Outing?	0.342	0.474	0	1
Past Month Religious Services?	0.493	0.500	0	1

I also include indicators of parenting styles in these models. These variables measure the extent of democratic family decision-making, as reported by the child. Two questions relate to this family characteristic: the first question asks the respondent how often his or her parents talk over important decisions with him or her, and the second question asks how often the parent listens to the child's side of the argument. The questions were also asked when the respondents were between 11 and 14 years old. Possible answers for both questions are "often" (coded 1), "sometimes" (coded 2), or "hardly ever" (coded 3). For the first two years from which this measure was drawn, the youth respondents were asked to answer these questions in relation to their "parents", which allowed them to define who their parents were for themselves. In later years, however, surveyors asked these questions specifically for their mother, father, and stepfather (a fourth category was added for "do not have this parent"). I aggregated these responses by taking the average response for all parent figures they reported. This is unlikely to cause significant problems, as parents tend to share similar parenting styles by the time their children reach adolescence (Steinberg 2001). I reversed the coding direction, so that the lower number would indicate less parental contact ("hardly ever"), while the higher value would indicate more parental listening or talking ("often"). Finally, I recoded this back into the original categorical variable, by rounding averaged scores to the nearest whole number (one through three)⁹. Results using the categorical variables were consistent with results using the averaged responses.

⁹ Scores of 1.5 or 2.5 were rounded up, on the assumption that when a young person had two parents who were slightly different in closeness to the youth, the parent who talked or listened more often would have more influence over the young person.

Indicators of family togetherness, also measured between ages 11 and 14, include five survey questions measuring the young person's estimation of time spent in specific activities with his or her parents over a period of time. They include questions regarding whether the respondent had gone to the movies, out to dinner, shopping, on an outing, or attended church with his or her parents in the past month. These variables are included separately in the model, because they are not highly correlated ($\alpha=.490$).

Net family income and mother and father's education are included in the analyses, as proxies for socioeconomic status. Mother's educational attainment is represented by one dummy variable, indicating high school graduation. The reference category is having less than a high school degree. Almost 60% of mothers reported completing high school. Father's educational attainment is coded similarly. However, as this data set follows mothers and their children specifically, there is less certainty regarding father's education. In order to construct this variable, I took the education reported for spouse or partner in the household in the same year that the mother indicated the child's father was living in the household. For those children who had not lived with their father, I took the child's report of their father's education, if known. For the remaining cases where father's education level was unknown, I created a second dummy variable, indicating that data on father's education was missing. Among the 85% of youth for whom I have data on father's education, slightly over half have completed high school. I computed a separate variable indicating whether the biological father lived in the home of the child at the survey point closest to age 12 for which there was

data¹⁰. Net family income¹¹ is kept as a continuous variable, but is logged in the multivariate analyses.

Gender of the child is also included in the analyses, with male as the reference category. Race/ethnicity of the adolescent is included as a set of categorical variables of Black, Hispanic and other race/ethnicity. White is the reference category. The large percentage of Blacks (39.58%) and Hispanics (24.31%) reflect both the over sampling of these two racial/ethnic groups and the over-representation of young mothers in the final sample. Weighting was not used, as it is not recommended¹² for use in multivariate logit analysis.

¹⁰ Ideally, this variable would have been constructed as a proportion of years the child lived with the father in the first ten years of life. However, this information began to be recorded at a later date than almost half of the sample was born.

¹¹ Net family income was measured as a compilation of the respondent's mother's income and her spouse or partner's income. Mother's income was reported in the following categories: military income, wages/salary/tips, business/farm, unemployment benefits, alimony, child support, AFDC, Food Stamps, SSI/public assistance, and VA Benefits/Disability. Mother's spouse or partner's income was measured by: military income, wages/salary/tips, business/farm, and unemployment benefits.

¹² NLSY79 staff recommends the use of weights only for descriptive tables. As the full sample was not utilized in this paper, weights were deemed unnecessary.

CHAPTER IV

ANALYTIC STRATEGY

I will use sequential logistic analysis (Powers and Xie 2000) to examine the log odds of ever enrolling in a college or university, and type of institution (two or four year) first attended. Using sequential logistic analysis allows for multiple selection steps. First, because college enrollment is a dichotomous variable, I employ logistic regression to estimate the odds of a person attending college based on a set of demographic and family characteristics. Then, I limit my sample to those who have enrolled in college and employ logistic regression again to get the log odds of attending a four year institution. Finally, I will further limit my sample to those who attended a four year college or university, and use ordinary least squares regression to analyzed factors contributing to the selectivity of the institution that they attended¹³. These two logistic regressions and one multiple regression analysis will follow the same steps for examining the relationship between the independent variables and the response variable.

The first set of demographic variables that I consider in each analysis are those related to socioeconomic status, race, and gender. Socioeconomic status is measured by mother and father's education and net family income. I then add three family structure variables: number of siblings, age of mother at birth of child, and presence of father in the home at age 12. Next, I elaborate upon the original relationship by controlling for a series of parenting and family variables. I will first consider the influence of cultural and human capital on college

¹³ This three-stage model is complicated by questions of sample selection bias. See Appendix B for a full discussion of the Heckman two-step selection method.

enrollment (as well as type of college and selectivity). Measures of a democratic family model will then be examined. The final set of variable of interest measure time spent in shared family activities. Conceptually, this suggests that certain family attributes may be associated with socioeconomic status. Controlling for these factors may indicate whether these attributes are related to college enrollment, regardless of socioeconomic status.

I then explore the possibility that socioeconomic status and race interact with these family practices, to produce differential results¹⁴. For each set of family practices (cultivation of cultural and human capital, parenting style, and family togetherness), I interact each variable with net family income, mother's education, and race. Results in this phase of the analysis may suggest that the effectiveness of cultural and human capital, parenting styles, and family togetherness are conditioned on socioeconomic status and race. I chose to limit this portion of the analysis to examining the effects of mother's education, as father's education was less influential in determining college enrollment. Only significant interactions are presented in the tables.

¹⁴ I also tested interactions of socioeconomic status and race with family structure, but found none of these results to be statistically significant.

CHAPTER V

RESULTS

Social Class, Race, Family Practices, and College Enrollment

The first model in Table 2 examines the relationship between college enrollment and parents' education and income, and youth's race and gender. As expected, features of socioeconomic status and race/ethnicity are significantly related to college enrollment. Blacks are 30% less likely to attend college than Whites, controlling for other background factors.

Those individuals whose mothers graduated high school are almost twice as likely to attend college as those whose mothers did not graduate, and higher family income increases the likelihood of attending college. Finally, gender was highly significant, with females 2.17 times as likely as males to attend college, holding all other variables in the model constant.

Table 2: Odds Ratios from Logistic Regression of College Enrollment on Socio-Economic, Family Structure, and Parenting Practice Variables, N=1399

	1	2	3	4	5
Mother HS Graduate	1.977***	1.902***	1.785***	1.789***	1.799***
Father HS Graduate	1.312	1.260	1.207	1.205	1.173
Father Education Missing	1.177	1.250	1.211	1.216	1.195
Family Income, year	1.346***	1.281**	1.231*	1.221*	1.219*
Female	2.169***	2.229***	2.232***	2.210***	2.193***
Black	0.701*	0.791	0.852	0.861	0.790
Hispanic	0.953	1.032	1.121	1.117	1.076
Other Race/Ethnicity	0.324***	0.344***	0.360**	0.355**	0.361**
Presence of Father in Home, age 12		1.420*	1.374*	1.394*	1.335*
Number of Siblings		0.882*	0.901	0.901	0.891*
Age of Mother at Child's Birth		0.985	0.983	0.982	0.978
Number of Books in Home			1.039	1.046	1.048
Musical Instrument in Home			1.207	1.201	1.167
Receive Daily Newspaper in Home			1.150	1.146	1.187
Child Enrolled in Activities			1.600***	1.626***	1.541***
Parents Listen to Child Hardly Ever				0.768	0.796
Parents Listen to Child Sometimes				0.974	0.972
Parents Talk over Decisions Hardly Ever				1.280	1.377
Parents Talk over Decisions Sometimes				1.104	1.121
Past Month Movies?					0.892
Past Month Dinner?					1.052
Past Month Shop?					1.225
Past Month Outing?					1.050
Past Month Religious Services?					1.539***
LogLikelihood (df)	-856.21++ (8)	-848.88++ (11)	-837.33++ (15)	-835.46 (19)	-827.60++ (24)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null).

In the second model, I added a series of family structure variables: presence of father in the home at age 12, number of siblings, and age of mother at birth of the child. Presence of a father in the home in adolescence increased the likelihood of attending college in young adulthood by 42%. Number of siblings was negatively related to college enrollment, with each additional sibling related to being 11.8% less likely to attend college. Adding these family structure variables mitigated the relationship between race and college enrollment, so that Blacks were no longer at a statistically significant disadvantage, in comparison to Whites. This suggests that Black youth's disadvantage in relation to college enrollment may be partially explained by a greater likelihood of living in a single parent household, with more siblings competing for resources.

Models 3 through 5 incorporate indicators of cultural and human capital, a democratic family model, and family togetherness. There are surprisingly few additional significant relationships in these models. The third model of Table 2 reveals that only enrollment of the youth in a special lesson or activity is strongly and positively related to later college enrollment. Children who were enrolled in an activity of some kind between the ages of 11 and 14 are 60% more likely to attend college than those who are not. While the ability to enroll children in outside activities is likely related to socio-economic status, this variable retains significance when controlling for income and parent's education. The fourth model reveals no additional significant variables, and is the only model in the table that is not a significant improvement over the prior nested model. Child's report of their parent's listening or talking to them during adolescence, therefore, has no relationship to later college enrollment.

In the final model, I included indicators of family togetherness, measured by activities that parents and children engaged in together over the previous month. Only one of these variables was significantly related to college enrollment. Those young people who attended religious services with their parents at least once in the last month were 54% more likely to attend college. This result may tap into the influence of religion as an institution as much as it speaks to the importance of young people spending time with their parents. Religious institutions, as suggested by Smith (2003), might benefit adolescents by connecting them to an established moral order, teaching important life skills, and connecting them to a positive adult community. Overall, the results reported in Table 2 support the first model of educational mobility, as delineated in Figure 1. Inclusion of cultural and human capital, parenting style, and family togetherness variables each reduce the strength of the relationship between family income, mother's education, race, and college enrollment.

In Table 3, I present the results of interactions between select socio-economic variables and the cultural and human capital variables. I ran interactions of race, mother's education, and income with each of the cultural and human capital variables. Only the significant interactions are presented here.

Table 3: Odds Ratios from Logistic Regression of College Enrollment on Cultural Capital Variables and Interactions, N=1399

	1	2	3	4	5
Mother HS Graduate	1.785***	1.815***	1.827***	1.828***	1.873***
Father HS Graduate	1.207	1.173	1.178	1.188	1.147
Father Education Missing	1.211	1.176	1.203	1.207	1.181
Family Income, year	1.231*	1.087	1.233*	1.228*	1.141
Female	2.232***	2.202***	2.218***	2.289***	2.257***
Black	0.852	0.870	1.190	0.974	1.230
Hispanic	1.121	1.146	1.454	1.753*	2.044**
Other Race/Ethnicity	0.360**	0.366**	0.493	0.259*	0.362
Presence of Father in Home, age 12	1.374*	1.376*	1.389*	1.371*	1.382*
Number of Siblings	0.901	0.901	0.897*	0.896*	0.894*
Age of Mother at Child's Birth	0.983	0.982	0.980	0.982	0.980
Number of Books in Home	1.039	1.045	1.051	1.028	1.041
Musical Instrument in Home	1.207	0.029*	1.863**	1.207	0.165
Receive Daily Newspaper in Home	1.150	1.152	1.136	1.618*	1.533
Child Enrolled in Activities	1.600***	1.600***	1.606***	1.613***	1.616***
Family Income*Musical Instrument		1.460*			1.264
Black*Musical Instrument			0.450**		0.541
Hispanic*Musical Instrument			0.585		0.714
Other Race/Ethn*Musical Instrument			0.523		0.484
Black*Newspaper				0.750	0.810
Hispanic*Newspaper				0.333***	0.355**
Other Race/Ethnicity*Newspaper				2.407	2.539
LogLikelihood (df)	-837.33++ (15)	-834.16++ (16)	-833.45 (18)	-829.49++ (18)	-824.87++^a (22)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null).

^a Significant improvement over the 1st, 2nd, and 3rd but not 4th model.

Model 1 in Table 3 is the baseline model, with no interactions for comparison. Model 2 presents the interaction of income and whether there was a musical instrument in the home. This interaction is statistically significant. From the coefficients of this relationship, I calculated odds ratios for the influence of owning a musical instrument on college enrollment at five income percentile points. These numbers are listed in Table 4, and they indicate the

predicted odds ratio of the effect of owning a musical instrument at each of the income percentiles listed. These results suggest that there is a differential benefit of owning a musical instrument, dependent upon income. Those individuals in the 25th and 10th percentile of the income distribution receive no significant educational benefit from access to musical instruments in the home. As income increases, however, the value of owning a musical instrument is enhanced.

**Table 4: Odds Ratios for Having a Musical Instrument
by Income Groups, Outcome = College Enrollment**

Effect of Instrument, Given Income	
90 th Percentile	1.684
75 th Percentile	1.466
50 th Percentile	1.165
25 th Percentile	0.930
10 th Percentile	0.777

Model 3 of Table 3 indicates that race and ownership of a musical instrument also interact. This interaction is significant for Blacks, in comparisons to Whites. The likelihood ratio test also suggests that the inclusion of the all three interactions significantly improve the explanatory power of the model. Figure 3 below suggests that Whites benefit more from the possession of a musical instrument than other races, particularly Blacks¹⁵. While White youth with access to an instrument at home have a predicted probability of attending college .46, those White youth who do not have a musical instrument have a .32 predicted probability of attending college. Among Black youth, however, those without an instrument have a predicted probability of attending college of .35 and Black youth with an instrument have the same predicted probability (.32) of attending college as White youth without a musical

¹⁵ Predicted probabilities for all figures were obtained by holding all other variables in the model to their mean.

instrument. Thus, there is a significant advantage to owning a musical instrument for many White youth, while this is not the case for Blacks or Hispanics.

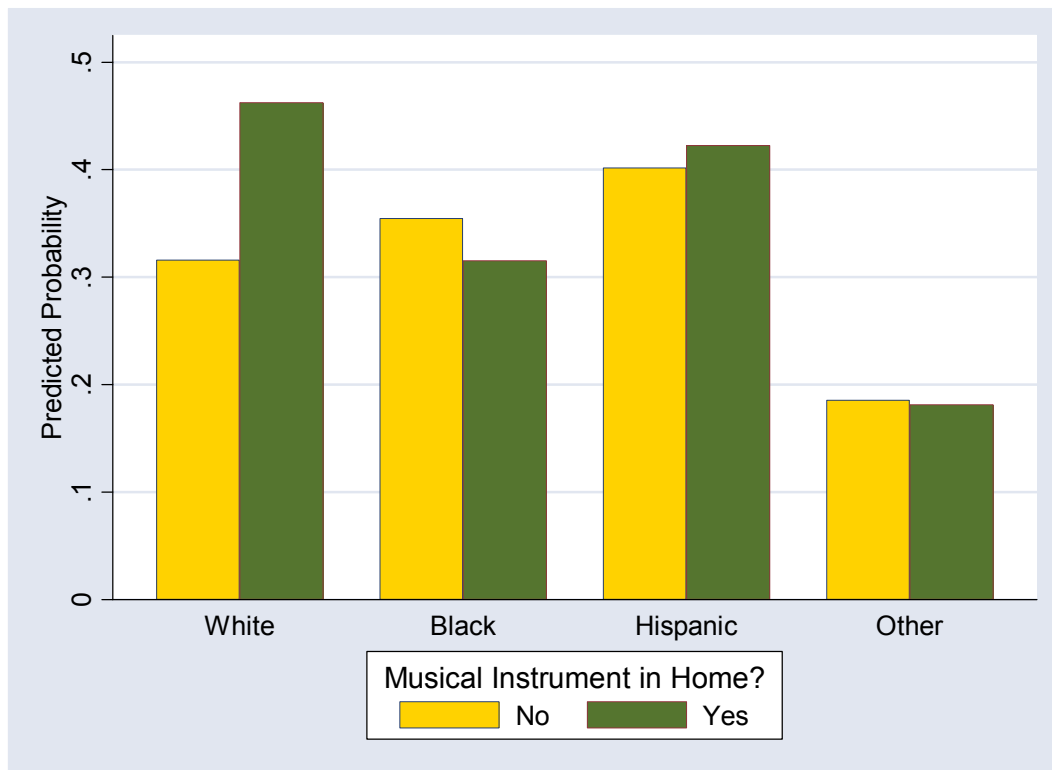


Figure 2: Predicted Probability of College Enrollment by Race and Ownership of Musical Instrument

Model 4 presents the interaction of race and receiving the newspaper at home. It was significant particularly for Hispanics in comparison to Whites. As we can see from Figure 4, while receiving a newspaper in the home was beneficial for other racial groups, receiving a newspaper in the home was associated with negative outcomes for Hispanics. The predicted probability of attending college was .12 higher for Whites with a newspaper than those without, while Blacks gained a .04 advantage from having a newspaper. Hispanics receiving a newspaper, on the other hand, had a .15 lower predicted probability of attending college than those who did not receive a newspaper in the home. One potential explanation for this

relationship is that Hispanics could be receiving Spanish language newspapers, which could indicate that they were recent immigrants, and receive less English language instruction at home. Model 5 includes all interactions from the previous three models, and only the interaction between race and receiving a newspaper in the home remains significant. Additionally, the fifth model did not represent a significantly greater explanation of college enrollment than did the fourth model. This suggests that controlling for the interaction of receiving a daily newspaper and race explains a sufficient degree of variability in income and race.

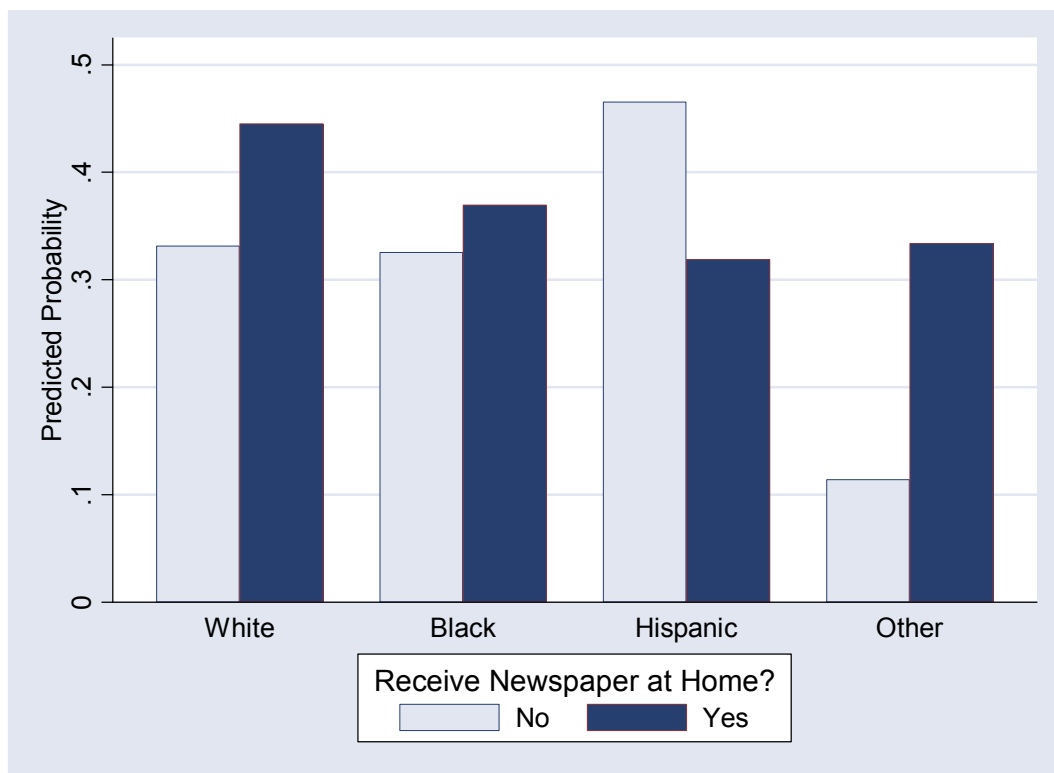


Figure 3: Predicted Probability of College Enrollment by Race and Receiving a Newspaper

All three of these interactions offer support for the second model of educational mobility—that the “success” of cultural capital is predicated upon the meaning that parents and their children ascribe to such capital, and to what extent that meaning is shared by the schools and other social institutions. While neither owning a musical instrument nor receiving a daily newspaper was significantly related to college enrollment in Table 2, possession of a musical instrument is beneficial for Whites and higher income families. Additionally, White youths in households that receive a newspaper do show a greater probability of attending college. This relationship is masked in the original table, however, by the negative relationship between receiving a newspaper and college enrollment for Hispanic young people. Controlling for this interaction effect, we can see that receiving a newspaper in the home is beneficial for White and Black youth, while it is negatively associated with enrolling in college for Hispanic youth, possibly due to the type of newspaper they receive. Hispanic households who receive Spanish language newspapers, for example, may be recent immigrants to the United States, with poorer English skills and fewer advantageous social ties.

Table 5 presents the results of interacting democratic model variables with race, mother’s education, and income. Again, this table presents significant interactions only. Model 2 presents the interaction between mother’s education and child’s report of his or her parents listening to his or her side of the story. Figure 4 suggests that while there is a positive relationship between parents listening and college enrollment for those whose mother’s graduated from high school, this relationship does not hold for the children of mother’s with

no high school degree. There is a slight advantage to children who report that their parents listen to them “Sometimes” as compared to both “Hardly Ever” and “Often”.

Table 5: Odds Ratios from Logistic Regression of College Enrollment on Democratic Family Model Variables and Interactions, N=1399

	1	2	3	4
Mother H.S. Graduate	1.913***	2.750***	1.914***	2.692***
Father H.S. Graduate	1.258	1.233	1.245	1.221
Father Education Missing	1.255	1.240	1.255	1.234
Family Income Logged, year	1.272**	1.283**	1.440**	1.404**
Female	2.207***	2.209***	2.176***	2.188***
Black	0.793	0.786	0.810	0.804
Hispanic	1.023	1.012	1.028	1.020
Other Race/Ethnicity	0.340***	0.339***	0.341***	0.342***
Presence of Father in Home, age 12	1.438*	1.417*	1.449*	1.428*
Sibling	0.882*	0.878*	0.881*	0.878*
Mother's Age	0.984	0.983	0.984	0.984
Parents Listen to Child Hardly Ever	0.763	1.138	35.224*	30.935
Parents Listen to Child Sometimes	0.952	1.355	1.615	1.290
Parents Talk over Decisions Hardly Ever	1.179	1.160	1.193	1.173
Parents Talk over Decisions Sometimes	1.067	1.059	1.076	1.067
Mother HS Grad*Parents Listen Hardly Ever		0.543		0.620
Mother HS Grad*Parents Listen Sometimes		0.582*		0.574*
Income*Parents Listen Hardly Ever			0.675*	0.706
Income*Parents Listen Sometimes			0.948	1.006
LogLikelihood (df)	-847.36++ (15)	-844.98 (17)	-844.61 (17)	-842.60++^a (30)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null).

^a Model 4 is significant compared to Model 1, but not Models 2 and 3.

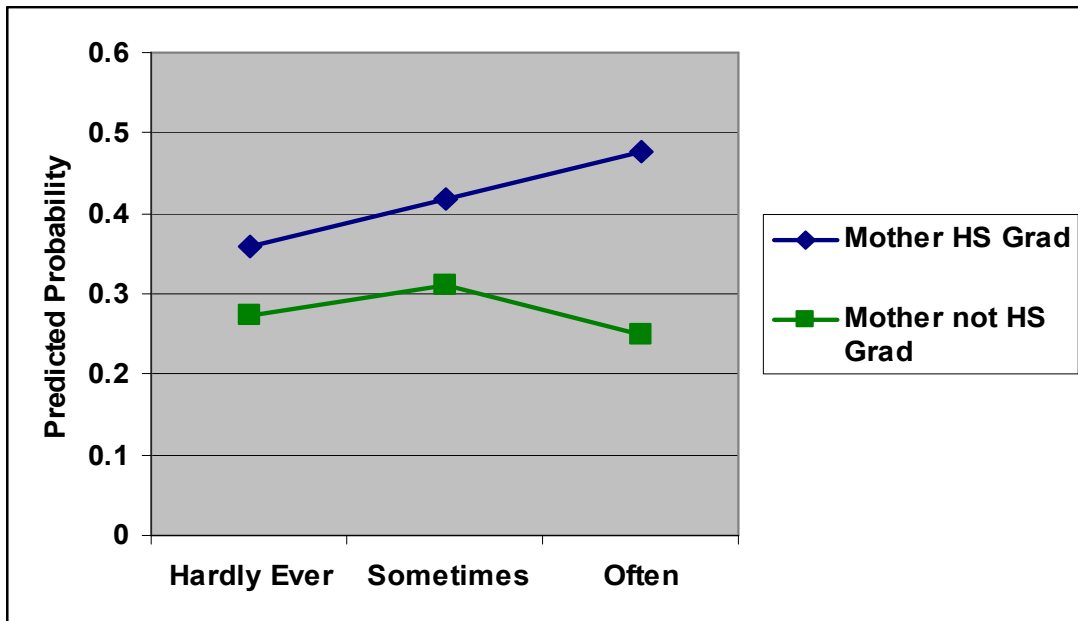


Figure 4: Predicted Probability of College Enrollment by Mother's Education and How Often Parents Listen to Child's Side in Arguments

Model 3 in Table 5 also presents the interaction of income and parents listening to child. Figure 5 presents the predicted probability of attending college for each income quartile, dependent upon the child's report of the frequency with which his or her parents listen. There is an increasing benefit to parents listening as income increases. For youth from the top 25% of the family income distribution, each increase in parents listening is associated with a greater probability of attending college. For those in the middle income ranges, the advantage accrues primarily between those who report that their parents listen "Sometimes" as opposed to "Hardly Ever." Those who reported their parent's listened "Sometimes" were only slightly less likely to attend college, in comparison to those who reported that their parent's "Often" listened. In the lowest income quartile, listening was negatively related to educational attainment.

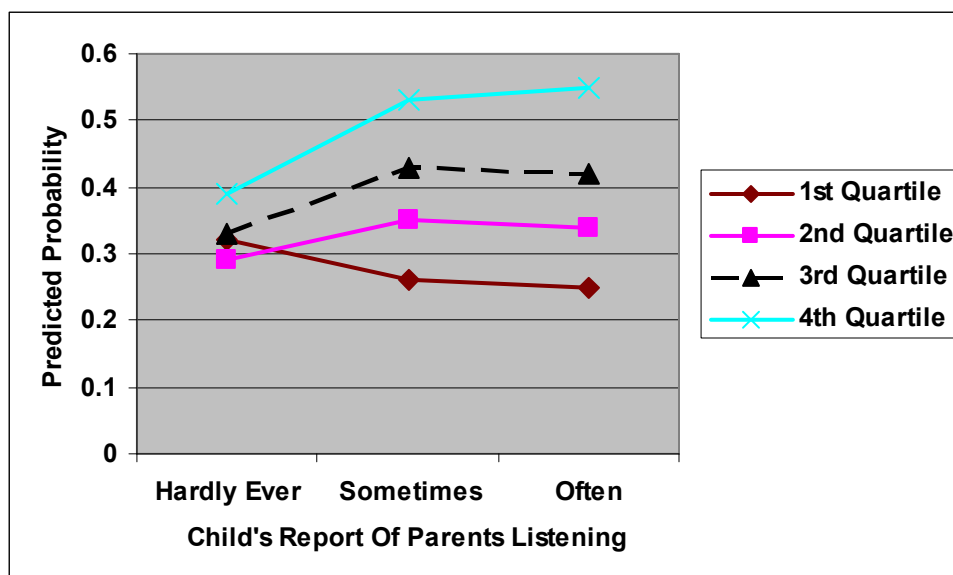


Figure 5: Predicted Probability of College Enrollment by Income Quartile and How Often Parents Listen to Child's Side in Arguments

Table 6 present the cumulative models for all socioeconomic, demographic, and family context variables. This is the final model of college enrollment, as the likelihood ratio test suggests that is a significantly better model of college enrollment than all previous nested models. Once again, the interaction for receiving a newspaper in the home remains significant. Additionally, enrollment in a special lesson or activity and religious service enrollment with parents remain significantly associated with a higher likelihood of attending college. These results point to support for both models of college enrollment. While certain family practices, such as enrolling a child in activities and attending religious services, are beneficial across socioeconomic status and race, other cultural capital and parent-child interaction styles become important only when examining them within a particular family context.

Table 6: Odds Ratios from Logistic Regression of College Enrollment on Cultural Capital, Democratic Family Model, and Family Togetherness Variables and Interactions, N=1399

	5
Mother H.S. Graduate	2.597***
Father H.S. Graduate	1.084
Father Education Missing	1.148
Family Income Logged, year	1.268
Female	2.189***
Black	1.168
Hispanic	1.913*
Other Race/Ethnicity	0.368
Presence of Father in Home, age 12	1.331
Sibling	0.885*
Mother's Age	0.974
Number of Books in Home	1.061
Musical Instrument in Home	0.216
Newspaper in Home	1.615*
Activities	1.541***
Parents Listen to Child Hardly Ever	27.802
Parents Listen to Child Sometimes	1.596
Parents Talk over Decisions Hardly Ever	1.342
Parents Talk over Decisions Sometimes	1.114
Past Month Movie?	0.886
Past Month Dinner?	1.092
Past Month Shop?	1.173
Past Month Outing?	1.045
Past Month Religious Services?	1.530***
Family Income*Musical Instrument	1.223
Black*Musical Instrument	0.547
Hispanic*Musical Instrument	0.778
Other Race/Ethn*Musical Instrument	0.448
Black*Newspaper	0.781
Hispanic*Newspaper	0.350**
Other Race/Ethnicity*Newspaper	2.770
Mother HS Grad*Parents Listen Hardly Ever	0.646
Mother HS Grad*Parents Listen Sometimes	0.588
Income*Parents Listen Hardly Ever	0.714
Income*Parents Listen Sometimes	0.983
LogLikelihood (df)	-811.58++ (35)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null).

Type of College Attended

Any level of tertiary education represents upward mobility for respondents in this sample, as none of their parent's attended a postsecondary institution of any kind. However, while college attendance represents mobility, there is an important difference between attending a two or four year institution. While some studies suggest that, holding educational attainment constant, enrollment in a two year college does not negatively impact occupation and earnings (Whitaker and Pascarella 1994), enrollment in these colleges does tend to suppress educational attainment, due to difficulties in transferring to a four year institution (Baker and Vélez 1996). Overall, therefore, young people who attend four year institutions have higher occupational status and earnings, on average, than do two year college attendees. For this reason, I extend my analysis to examine the relationship between ascribed characteristics, social class, race, family context, and type of postsecondary institution attended for a sub-sample of 475 respondents¹⁶.

Table 7 presents the results from a logistic regression of type of college on socioeconomic, demographic, and family background variables. Surprisingly, not many predictors were significantly related to attending a four year postsecondary institution, in comparison to attending a two year institution for this group of youth whose parents never attended college. In the first two models, only race was significantly related to type of college or university attended, with Hispanics over 50% less likely than Whites to attend a four year institution¹⁷.

¹⁶ Of the initial sample, 530 respondents attended a college of some kind. Information on type of institution was available for 90% of these college attendees.

¹⁷ Substituting black as the reference category for race revealed that there was no significant difference between Hispanic and black youth.

In the third model, enrollment in a special lesson or activity in adolescence is related to 65% increased likelihood of attending a four year college or university. No additional statistically significant findings are found by adding variables regarding parents listening and talking to the youth respondents. These second through fourth models have low explanatory power as indicated by the likelihood ratio test. It is not until Model 5, which includes family togetherness variables, that there is a significant increase in explanatory power of the model. In this analysis, being Hispanic remains negatively associated with enrollment in a four year college or university, and activities in adolescence are positively associated with attending a four year institution. Unexpectedly, young people who reported having attended a movie in the past month with their parents (when interviewed between the ages of 11 and 14) were 52% as likely to attend a four year college as those who said they had not attended a movie with their parents. This finding is unexpected because I hypothesize that family togetherness would increase the likelihood of attending a four year college. However, it is possible that attending movies with parents is a form of negative cultural capital, and represents other possible activities (i.e., trips to a museum, sporting events, etc.) that are not taking place.

Table 7: Odds Ratios from Logistic Regression of Four-Year College Enrollment on Socio-Economic, Family Structure, and Parenting Practices Variables, N=475

	1	2	3	4	5
Mother HS Graduate	1.020	0.962	0.945	0.950	0.922
Father HS Graduate	1.137	1.126	1.139	1.099	1.075
Father Education Missing	1.432	1.499	1.501	1.476	1.469
Family Income, year	1.086	1.037	1.024	0.987	0.972
Female	0.867	0.874	0.931	0.895	0.923
Black	0.672	0.727	0.709	0.711	0.752
Hispanic	0.447**	0.458**	0.480*	0.475*	0.519*
Other Race/Ethnicity	0.840	0.851	0.836	0.777	0.850
Presence of Father in Home, age 12		1.130	1.086	1.107	1.056
Number of Siblings		0.927	0.928	0.929	0.909
Age of Mother at Child's Birth		1.038	1.036	1.038	1.050
Number of Books in Home			0.967	0.970	0.991
Musical Instrument in Home			0.990	0.986	1.000
Receive Daily Newspaper in Home			0.997	1.013	1.046
Child Enrolled in Activities			1.652*	1.652*	1.541*
Parents Listen to Child Hardly Ever				0.601	0.624
Parents Listen to Child Sometimes				0.872	0.882
Parents Talk over Decisions Hardly Ever				1.104	1.177
Parents Talk over Decisions Sometimes				1.136	1.193
Past Month Movies?					0.519**
Past Month Dinner?					1.219
Past Month Shop?					1.134
Past Month Outing?					1.371
Past Month Religious Services?					1.205
LogLikelihood (df)	-317.28++ (8)	-316.26 (11)	-313.30 (15)	-311.73 (19)	-305.89++ (24)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null).

Table 8 reports the interaction between taking lessons or activities in adolescence and race, in relation to type of college. The coefficients as they are presented are not interpretable. However, inclusion of the interaction terms eliminated the relationship between being Hispanic and attending a four year college. Figure 6 displays the predicted probability of

attending a four year college by race and enrollment in special lessons or activities, holding all other variables to their mean. While enrollment in activities resulted in a doubling of the predicted probability of attending a four year college for Whites, this relationship was not observed for Black and Hispanic young people. For African American youth, participation in a lesson or activity was associated with a .44 predicted probability of attending a four year college, when holding all other variables to the mean, as compared to a .36 predicted probability for those who did not participate in an activity. For Hispanics, youth who had participated in an activity had a lower predicted probability of attending a four year college (.30) than those who had not (.32).

Table 8: Odds Ratios from Logistic Regression of Four-Year College Enrollment on Cultural Capital Variables and Interactions, N=475

	1	2
Mother HS Graduate	0.945	0.966
Father HS Graduate	1.139	1.108
Father Education Missing	1.501	1.400
Family Income, year	1.024	1.024
Female	0.931	0.966
Black	0.709	1.333
Hispanic	0.480*	1.140
Other Race/Ethnicity	0.836	6.717
Presence of Father in Home, age 12	1.086	0.996
Number of Siblings	0.928	0.914
Age of Mother at Child's Birth	1.036	1.028
Number of Books in Home	0.967	0.967
Musical Instrument in Home	0.990	1.005
Receive Daily Newspaper in Home	0.997	0.944
Child Enrolled in Activities	1.652*	3.541***
Black*Enrolled in Activities		0.394
Hispanic*Enrolled in Activities		0.255*
Other Race/Ethnicity*Enrolled in Activities		0.051*
LogLikelihood (df)	-313.30 (15)	-308.28++ (18)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null).

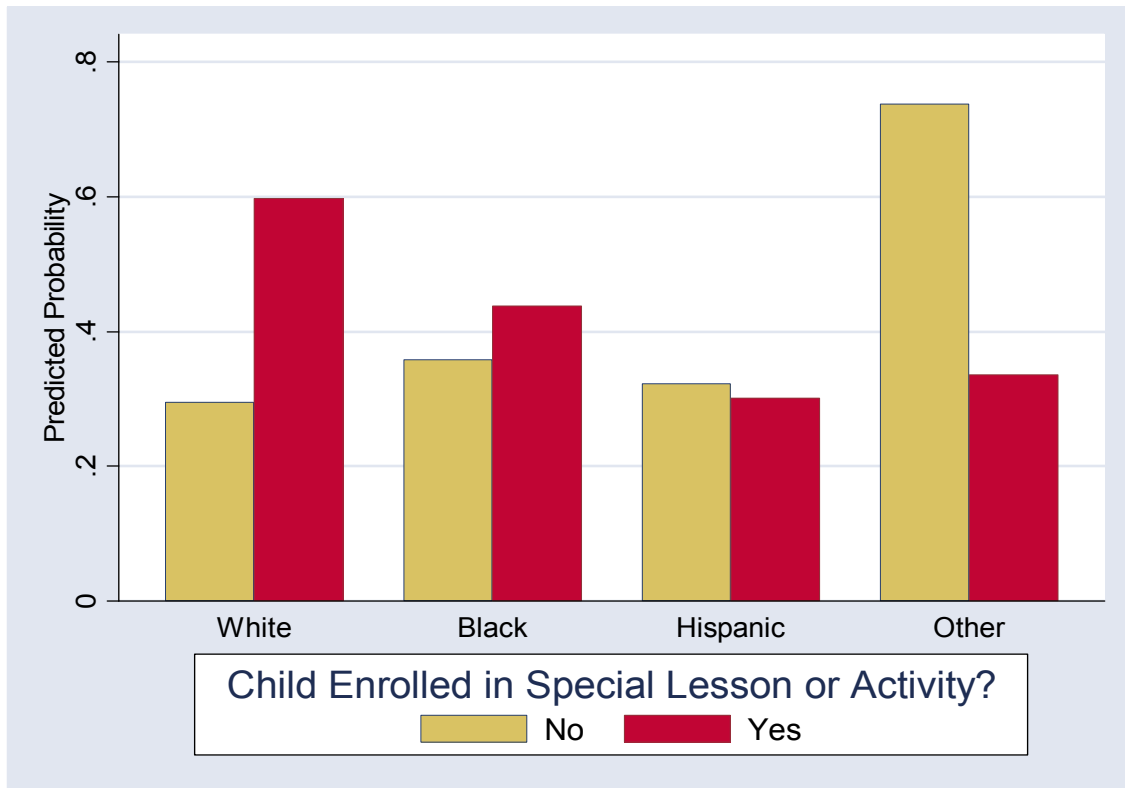


Figure 6: Predicted Probability of Attending Four-Year College by Race and Enrollment in a Special Lesson or Activity in Adolescence

Table 9 presents the results of interacting democratic family model variables and socioeconomic status and race/ethnicity when predicting college type. Model 2 presents the results for the interaction of mother’s education with parents talking to their child about important decisions. Calculating the predicted probability of attending a four year college at each level of mother’s education and parent’s frequency of talking to their children reveals that those young people whose mothers dropped out of high school benefit from a less permissive family model (Figure 7). Young people who report that their parents “Hardly Ever” talk to them about important decisions have an exceptionally higher probability of attending a four year institution than those who report their parents talk to them about important decisions “Often”. On the other hand, youth whose mothers graduated from high

school have a higher probability of attending a four year college or university if they report more communication from their parents.

Table 9: Odds Ratios from Logistic Regression of Four-Year College Enrollment on Democratic Family Model Variables and Interactions, N=475

	1	2	3	4
Mother H.S. Graduate	0.965	1.913	0.976	2.072
Father H.S. Graduate	1.088	1.132	1.091	1.138
Father Education Missing	1.476	1.519	1.482	1.534
Family Income Logged, year	1.001	1.034	0.647*	0.654
Female	0.841	0.841	0.899	0.910
Black	0.726	0.712	0.723	0.704
Hispanic	0.453**	0.447**	0.446**	0.440**
Other Race/Ethnicity	0.785	0.751	0.808	0.769
Presence of Father in Home, age 12	1.154	1.134	1.114	1.084
Sibling	0.928	0.911	0.946	0.926
Mother's Age	1.038	1.027	1.041	1.029
Parents Listen to Child Hardly Ever	0.603	0.591	0.000**	0.000**
Parents Listen to Child Sometimes	0.845	0.809	0.002*	0.001*
Parents Talk over Decisions Hardly Ever	1.064	4.170*	1.066	4.734**
Parents Talk over Decisions Sometimes	1.128	2.056	1.165	2.295
Mother HS Grad*Parents Talk Hardly Ever		0.149**		0.126**
Mother HS Grad *Parents Talk Sometimes		0.453		0.410
Income*Parents Listen Hardly Ever			2.775**	3.125**
Income*Parents Listen Sometimes			1.850*	1.902*
LogLikelihood (df)	-314.65 (15)	-310.01++ (17)	-309.35++ (17)	-304.10++ (26)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null, 5th Model compared to 1st).

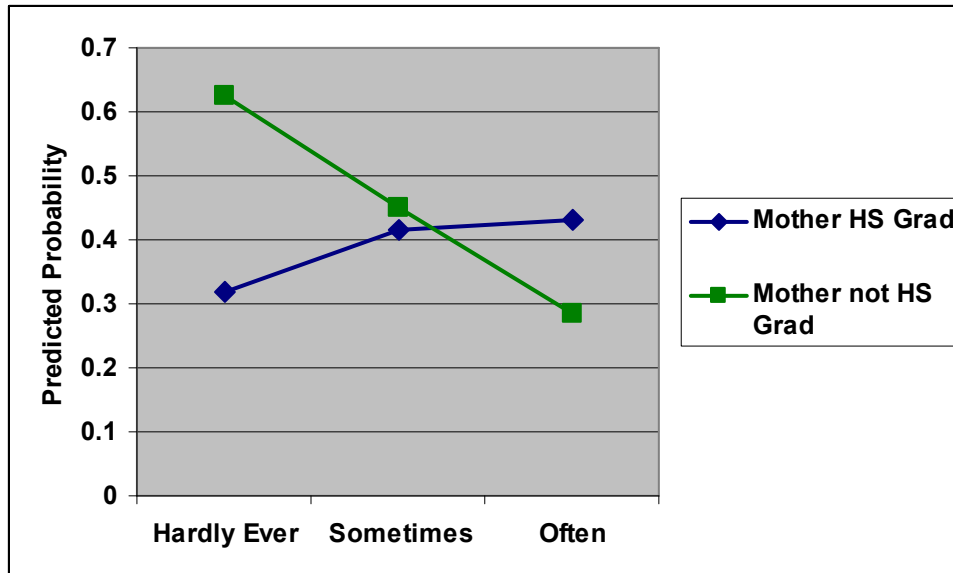


Figure 7: Predicted Probability of Attending a Four-Year College by Mother’s Education and How Often Parents Talk with Child about Important Decisions

Conversely, interacting income with the respondent’s report of whether the parent or parents in the household listened to his or her side of an argument reveals dissimilar results. Figure 8 presents the predicted probabilities of attending a four-year institution for this interaction by income percentile. For individuals at the 75th percentile of the income distribution, individuals who report that their parents listen to them less are more likely to attend a four year college than those who report that their parents listen to them “Often”. Furthermore, this table indicates that listening by parents is related to a young person’s enrollment at a four year college or university, as net family income decreases. For those at the 10th percentile of the income distribution, a child reporting that his or her parents listen “Hardly Ever” is much less likely to attend a four year college than a child who reports that his or her parents listen to their side “Often.”

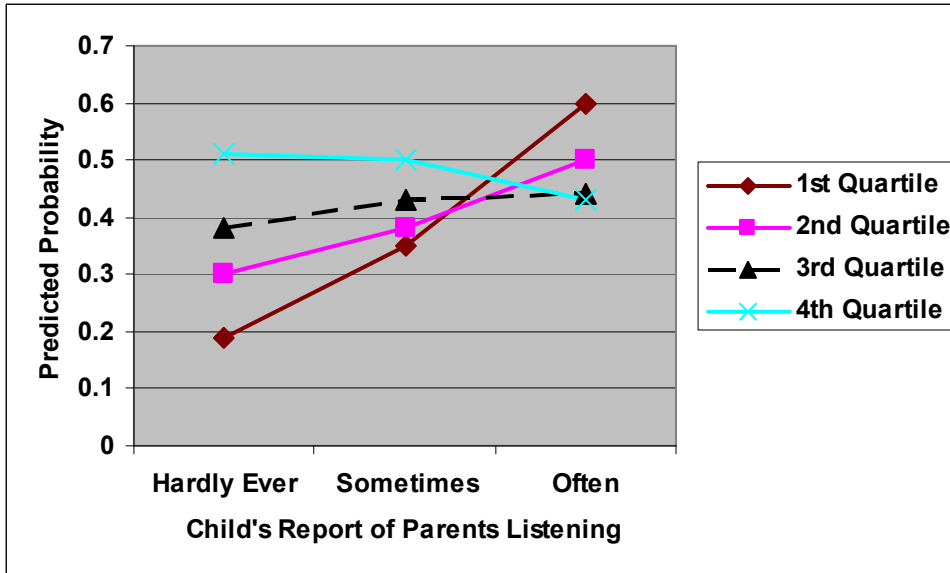


Figure 8: Predicted Probability of Attending a Four-Year College by Income Quartile and How Often Parents Listen to Child's Side in Arguments

While the interactions for parental listening, income, and mother's education seem to conflict, they both remain significant in the final model (Table 10), indicating that the two questions may tap into different dimensions of family life. It is possible that children who report that their parents listen to them may be reflecting a feeling of fairness or closeness to those parents. This is commensurate with theories on authoritative parenting, particularly in the "warmth" dimension (Gray and Steinberg 1999). On the other hand, children who report that their parents discuss important decisions with them may be reflecting a permissive parenting tactic. Strict boundaries between adults and children may be beneficial, particularly for disadvantaged youth.

Table 10: Odds Ratios from Logistic Regression of Four-Year College Enrollment on Cultural Capital, Democratic Family Model, and Family Togetherness Variables and Interactions, N=475

	1
Mother H.S. Graduate	2.085
Father H.S. Graduate	1.106
Father Education Missing	1.427
Family Income Logged, year	0.603*
Female	1.042
Black	1.165
Hispanic	1.215
Other Race/Ethnicity	8.707
Presence of Father in Home, age 12	0.895
Sibling	0.886
Mother's Age	1.038
Number of Books in Home	0.939
Musical Instrument in Home	1.133
Newspaper in Home	1.124
Activities	2.998**
Parents Listen to Child Hardly Ever	0.000**
Parents Listen to Child Sometimes	0.001*
Parents Talk over Decisions Hardly Ever	5.285**
Parents Talk over Decisions Sometimes	2.474*
Past Month Movie?	0.507**
Past Month Dinner?	1.247
Past Month Shop?	1.190
Past Month Outing?	1.456
Past Month Religious Services?	1.245
Black*Activities	0.499
Hispanic*Activities	0.247*
Other Race/Ethnicity*Activities	0.036
Mother HS Grad*Parents Talk Hardly Ever	0.113**
Mother HS Grad *Parents Talk Sometimes	0.399
Income*Parents Listen Hardly Ever	3.533**
Income*Parents Listen Sometimes	1.944*
LogLikelihood	-289.41++
(df)	(31)

*p < .05, **p < .01, ***p < .001 (two-tailed test)

++ Indicates that model is a significant improvement over previous nested model (first model is compared to null, 5th Model compared to 1st).

Selectivity of Institution

In the final set of analyses, I use ordinary least squares regression to examine the relationship between institutional selectivity and socioeconomic, demographic, and family background characteristics. Table 11 reports the regression results without interactions. Interestingly, while race has not been significant in most of the previous models, Table 11 demonstrates that Black respondents attend less selective colleges and universities than Whites, on average. This holds true for the first three models, although Whites and Blacks become more similar when cultural capital is taken into account. This offers some support for the first model of educational attainment, which suggests that similar family practices may diminish the relationship between race and attainment. Family income is also positively associated with higher selectivity in all models. Models 3 and 4 reveal that number of books in the home, and children's reporting of their parents talking over decisions with them "Sometimes" as opposed to "Often" are related to higher selectivity scores. The final model explains 17% of the variance in institutional selectivity.

Table 11: Coefficients from Multiple Regression of Institutional Selectivity on Socio-Economic, Family Structure, and Parenting Practices Variables, N=197

	1	2	3	4	5
Mother H.S. Graduate	7.849 (16.931)	19.070 (18.616)	17.637 (18.793)	22.718 (18.840)	24.187 (18.416)
Father H.S. Graduate	12.817 (17.761)	14.202 (17.774)	18.272 (17.118)	15.631 (17.412)	16.519 (17.975)
Father Education Missing	-3.700 (32.551)	-0.228 (32.780)	2.323 (32.505)	-3.578 (33.763)	-2.130 (33.510)
Family Income Logged, year	21.319* (8.590)	25.101* (9.991)	24.018* (10.104)	23.710* (9.762)	20.447* (9.826)
Female	20.280 (15.000)	20.873 (14.777)	20.381 (14.836)	19.607 (14.894)	21.110 (15.455)
Black	-63.540** (18.083)	-70.640*** (17.665)	-45.492* (19.156)	-38.272 (19.748)	-36.118 (19.164)
Hispanic	3.852 (24.602)	2.802 (24.960)	34.009 (25.968)	43.172 (26.705)	45.704 (26.502)
Other Race/Ethnicity	47.860 (31.805)	50.148 (30.311)	85.607** (27.680)	78.557** (25.172)	68.407* (29.219)
Presence of Father in Home, age 12		-3.652 (16.358)	-8.739 (16.121)	-9.895 (15.902)	-7.994 (16.639)
Sibling		6.508 (7.671)	10.198 (7.343)	10.681 (7.528)	10.759 (7.525)
Mother's Age		-4.829 (3.025)	-4.867 (3.108)	-4.408 (2.950)	-3.792 (3.015)
Number of Books in Home			25.600** (9.479)	29.066** (9.433)	28.980** (9.209)
Musical Instrument in Home			18.340 (14.910)	17.793 (14.566)	15.714 (13.930)
Newspaper in Home			-12.719 (15.311)	-13.772 (15.253)	-14.674 (15.295)
Activities			31.190 (16.742)	30.817 (16.539)	31.122 (17.730)
Parents Listen to Child Hardly Ever				5.914 (21.666)	4.633 (22.134)
Parents Listen to Child Sometimes				-2.023 (15.694)	-1.850 (15.913)
Parents Talk over Decisions Hardly Ever				24.460 (21.537)	20.659 (22.821)
Parents Talk over Decisions Sometimes				37.000* (15.927)	36.269* (16.902)
Past Month Movie?					3.574 (16.591)
Past Month Dinner?					10.118 (17.813)
Past Month Shop?					-36.924 (26.140)
Past Month Outing?					8.242 (15.474)
Past Month Religious Services?					-12.982 (15.849)
Constant	794.126***	833.311***	714.442***	671.484***	718.863***
Adjusted R²	0.12	0.13	0.17	0.18	0.17

*p < .05, **p < .01, ***p < .001 (two-tailed test)
(Standard errors in parentheses)

Table 12 adds an interaction of income and parents listening to their child to the model. Family income and listening operate unexpectedly in the selectivity model. Figure 9 demonstrates that unlike the prediction of enrollment in a four year college, in which low income youth benefited from parents who listened to them, listening is now negatively related to selectivity of college for the lowest income quartiles. This advantage decreases as income increases, until those in the 75th income quartile whose parents listen to them “Hardly Ever” or “Sometimes” generally report attending colleges with lower selectivity scores than those whose parents listen to them “Often”.

Table 12: Coefficients from Multiple Regression of Institutional Selectivity on Democratic Family Model Variables and Interactions, N=197

	1	2
Mother H.S. Graduate	22.540 (18.846)	25.411 (18.625)
Father H.S. Graduate	11.959 (18.433)	7.109 (18.217)
Father Education Missing	-6.805 (34.489)	-9.189 (34.298)
Family Income Logged, year	24.960* (9.870)	38.686*** (11.083)
Female	20.740 (14.922)	19.343 (14.838)
Black	-66.032*** (18.621)	-61.178** (19.113)
Hispanic	9.806 (25.619)	5.478 (25.420)
Other Race/Ethnicity	41.180 (30.091)	37.208 (29.438)
Presence of Father in Home, age 12	-4.575 (16.358)	-1.854 (16.580)
Sibling	5.995 (7.969)	5.739 (7.750)
Mother's Age	-4.598 (2.932)	-4.248 (2.868)
Parents Listen to Child Hardly Ever	8.814 (21.693)	644.738** (208.632)
Parents Listen to Child Sometimes	-1.551 (16.256)	171.674 (172.439)
Parents Talk over Decisions Hardly Ever	9.166 (22.130)	6.095 (21.761)
Parents Talk over Decisions Sometimes	30.420 (16.430)	28.938 (16.206)
Income*Parents Listen Hardly Ever		-63.329** (20.546)
Income*Parents Listen Sometimes		-17.214 (16.957)
Constant	812.005***	668.964***
Adjusted R²	0.13	0.14

*p < .05, **p < .01, ***p < .001 (two-tailed test)
(Standard errors in parentheses)

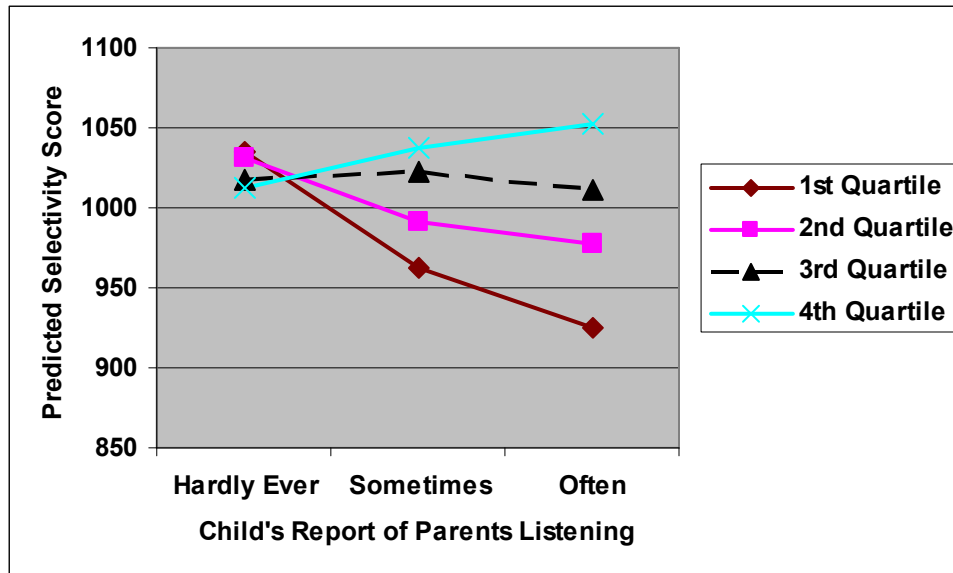


Figure 9: Predicted Selectivity Score by Income Quartile and How Often Parents Listen to Child's Side in Arguments

Table 13 presents the results of interacting income, mother's education, and race with family togetherness variables (see Models 2 through 4). All three variables interacted significantly with religious attendance. In each interaction, attending religious services with his or her parents increased the relative advantage or disadvantage a young person already held in regards to educational attainment.

Table 13: Coefficients from Multiple Regression of Institutional Selectivity on Family Togetherness Variables and Interactions, N=197

	1	2	3	4	5
Mother H.S. Graduate	20.443 (18.618)	25.105 (18.114)	-23.817 (29.462)	21.970 (19.233)	-28.181 (28.979)
Father H.S. Graduate	15.544 (18.119)	13.421 (17.681)	12.087 (17.066)	22.626 (17.613)	18.672 (16.754)
Father Education Missing	5.115 (31.989)	0.498 (29.913)	-1.146 (32.229)	2.913 (31.201)	-6.143 (30.358)
Family Income Logged, year	20.586* (9.748)	-8.436 (17.392)	21.933* (9.436)	19.616* (9.565)	1.095 (14.813)
Female	21.932 (15.178)	21.933 (14.880)	20.609 (15.215)	23.283 (15.183)	19.405 (14.997)
Black	-70.111*** (17.179)	-68.317*** (17.387)	-71.605*** (17.163)	-23.784 (24.839)	-42.737 (24.325)
Hispanic	3.545 (25.075)	2.496 (24.446)	1.630 (24.381)	-8.351 (42.874)	-54.175 (39.395)
Other Race/Ethnicity	38.075 (33.556)	32.668 (27.765)	35.745 (32.321)	83.777* (39.122)	63.640 (29.252)
Presence of Father in Home, age 12	-1.402 (16.914)	-0.564 (16.849)	-0.867 (16.681)	-6.868 (16.992)	-4.526 (16.629)
Sibling	6.595 (7.523)	7.662 (7.464)	5.994 (7.155)	6.781 (7.576)	6.826 (7.216)
Mother's Age	-4.305 (3.061)	-3.068 (2.988)	-4.031 (2.934)	-4.349 (3.191)	-3.393 (3.034)
Past Month Movie?	12.010 (16.636)	15.020 (16.531)	9.721 (16.843)	17.764 (16.943)	18.283 (16.858)
Past Month Dinner?	10.825 (17.262)	9.965 (16.985)	9.696 (17.438)	11.501 (16.866)	7.836 (16.916)
Past Month Shop?	-44.125 (27.865)	-48.296 (26.806)	-38.709 (27.235)	-50.321 (27.528)	-44.561 (25.808)
Past Month Outing?	10.415 (15.578)	9.298 (15.264)	11.996 (15.570)	11.312 (15.552)	11.501 (15.375)
Past Month Religious Services?	-6.647 (14.947)	-470.272* (185.634)	-62.233* (29.676)	17.401 (19.734)	-390.167* (177.867)
Family Income*Religious Services		46.261 (18.322)*			32.595 (17.072)
Mother HS Grad*Religious Services			73.286* (34.649)		82.572* (34.430)
Black*Religious Services				-75.047* (35.663)	-45.325 (36.053)
Hispanic*Religious Services				12.913 (49.477)	75.700 (46.239)
Other Race/Ethn*Religious Services				-118.668* (47.914)	-86.882 (41.082)
Constant	891.365***	1,157.335* **	906.633***	888.154***	1115.532** *
Adjusted R²	0.13	0.15	0.14	0.14	0.18

*p < .05, **p < .01, ***p < .001 (two-tailed test)
(Standard errors in parentheses)

Figure 10 demonstrates that young people whose mother graduated from high school benefit from attending religious services, with an 11.06 point higher selectivity score than those who did not attend religious services with their parents. On the other hand, for those whose mothers dropped out of high school, attending religious services was associated with a 62 point drop in selectivity of college. Furthermore, Table 14 shows that while attending religious services is modestly beneficial for those in the 90th and 75th income percentiles; attending religious services is related to attending a college with a lower selectivity score for those in the bottom three income percentiles. Finally, Figure 11 depicts the predicted selectivity scores by race and religious service attendance, holding all other variables to the mean. While there is a slight benefit to White and Hispanic students, attending religious services is associated with a lower selectivity score for Black respondents.

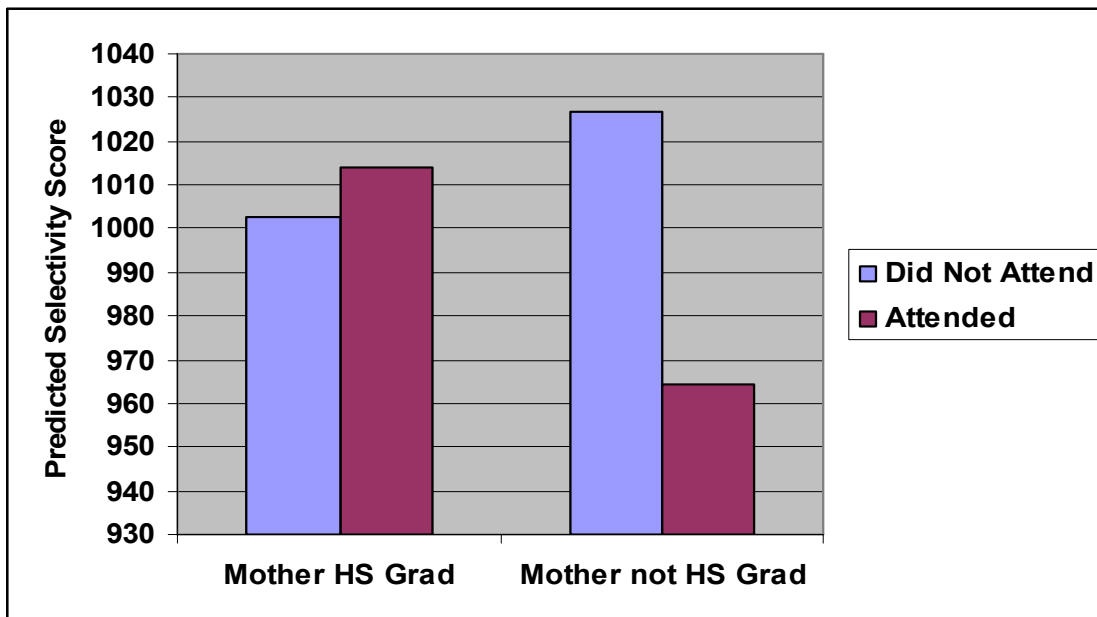


Figure 10: Predicted Selectivity of College by Mother's Education and Religious Attendance with Parents

Table 14: Odds Ratios for Attendance at Religious Services with Parents by Income, Outcome = Selectivity of College
Effect of Religious Service Attendance

90th Percentile	26.525
75th Percentile	9.593
50th Percentile	-18.395
25th Percentile	-45.966
10th Percentile	-67.894

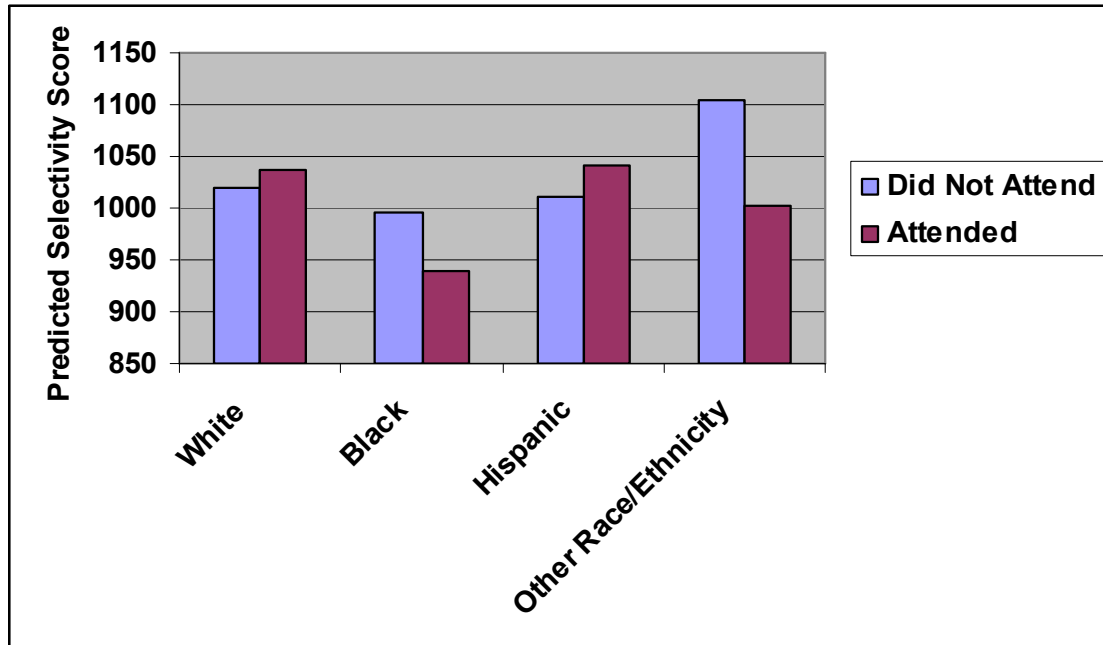


Figure 11: Predicted Selectivity of College by Mother's Education and Religious Attendance with Parents

Table 15 also presents the saturated model of institutional selectivity, containing all independent variables and significant interactions. When these variables are included, all interactions except that between income and religious service attendance remain significant. Number of books in the home, enrolling the child in a special lesson or activity, and "Sometimes" talking over important decisions with child are all related positively to selectivity score. This final model explains 26% of the variance in institutional selectivity.

Table 15: Multiple Regression of Institutional Selectivity on Cultural Capital, Democratic Family Model, and Family Togetherness Variables and Interactions, N=197

	6
Mother H.S. Graduate	-25.258 (25.841)
Father H.S. Graduate	16.407 (15.920)
Father Education Missing	-17.651 (30.463)
Family Income Logged, year	28.091 (20.022)
Female	17.236 (15.744)
Black	23.536 (27.252)
Hispanic	-6.680 (34.850)
Other Race/Ethnicity	88.232*** (26.438)
Presence of Father in Home, age 12	-8.885 (16.062)
Sibling	10.498 (7.000)
Mother's Age	-3.548 (2.896)
Number of Books in Home	31.576*** (9.215)
Musical Instrument in Home	9.665 (13.407)
Newspaper in Home	-21.348 (14.820)
Activities	33.536* (16.865)
Parents Listen to Child Hardly Ever	725.791** (272.944)
Parents Listen to Child Sometimes	154.063 (192.111)
Parents Talk over Decis. Hardly Ever	13.597 (20.219)
Parents Talk over Decisions Sometimes	42.069* (16.580)
Past Month Movie?	9.919 (16.152)
Past Month Dinner?	4.455 (17.020)
Past Month Shop?	-37.233 (24.155)
Past Month Outing?	2.297 (14.790)
Past Month Religious Services?	-195.401 (200.290)
Income*Parents Listen Hardly Ever	-71.358** (26.880)
Income*Parents Listen Sometimes	-15.307 (18.910)
Family Income*Religious Services	13.909 (19.154)
Mother HS Grad*Religious Services	89.349** (32.029)
Black*Religious Services	-88.057* (34.743)
Hispanic*Religious Services	59.991 (40.012)
Other Race/Ethn*Religious Services	-71.210 (48.956)
Constant	662.826**
Adjusted R²	0.26

*p < .05, **p < .01, ***p < .001 (two-tailed test)
(Standard errors in parentheses)

CHAPTER VI

CONCLUSIONS

The purpose of this study is to examine the ways in which socioeconomic status, race, and family context interact to provide pathways to upward mobility. The analyses presented here provide evidence that mobility chances are stratified by socioeconomic status and race, even among the relatively disadvantaged. Additionally, some of this stratification occurs through the differential payoff of cultural, human, and social capital, rather than by the mere possession of it.

The second model of educational mobility suggests that the benefits of exposure to cultural, human, and social capital are dependent upon a young person's socioeconomic status and race. Each stage of my analysis supports this supposition. The probability of attending college, for example, is greatly enhanced by the combination of owning a musical instrument and being White, rather than just exposure to a musical instrument by itself. Additionally, attendance at a religious service, which may provide adult social contacts for young people, is disproportionately advantageous in terms of college selectivity to young people who are White, come from higher income households, or whose mothers have attained a high school degree. This suggests that the advantages that accrue to young people from religious service attendance, which Smith (2003) argues may be conceptualized into three categories: moral order, learned competencies, and social and organizational ties, are disproportionately accessed through this social institution, dependent upon socioeconomic status and race. I would argue that this evidence accentuates the importance of the "capital"

label attached to social, cultural and human capital. While many studies employ measures of cultural markers, social contacts, and skill-accruing activities, it is important to acknowledge that these variables indicate the *presence* of such potential advantages, rather than their meaning or actualization. Young people and their parents must employ strategies of action, in order for these social markers to be invested for further gain. For families who do not share a middle or upper middle class cultural framework, these strategies are difficult to access.

However, there is some evidence that some parenting practices are sufficient on their own to mitigate the effects of social origin. Enrollment in a special lesson or activity in adolescence, for example, is positively related to college enrollment, independent of income, parent's educational status, and race. Additionally, while religious service attendance was differentially related to institutional selectivity, it was significantly related to college attendance across race/ethnicity and social class. Number of books in the home was also related to institutional selectivity across all groups, and movie attendance was negatively related to attending a four year college.

While there are both direct and moderated effects of family practices, the influence of family background remains important in understanding educational achievement. Mother's education and family income are significantly related to college enrollment, while both type of college and institutional selectivity are related to a young person's race. Finally, income is an important correlate to college selectivity. These results indicate that while some stratification is mediated through other observable characteristics, educational stratification can also be understood in terms of direct background effects. These results are particularly striking, given the limited variation in the sample. As the sample has been constrained to young people whose parents have not attended college, it is reasonable to expect income and

parent's education to hold less sway in educational achievement, yet this is not the case. Even among the relatively disadvantaged, therefore, upward mobility is stratified by income, parent's education, and race.

Some results were interesting in their absences. In particular, measures of family togetherness apart from religious service attendance were notably unrelated to college enrollment and selectivity. Respondents who indicated that they had eaten dinner with a parent were not significantly more likely to enroll in college, attend a four year college, or enroll in a more selective institution. This result is surprising, given the importance of parent-child contact in many models of adolescent academic success. In addition, I tested interaction relationships between family structure and socioeconomic status and race, but these interactions were not significant.

While this study is an important step toward understanding the family contexts in which cultural, social, and human capital are ascribed meaning, there are limitations to the extent to which we can generalize these results. First, a better understanding of the intersection of social class and family practices will require an examination of young people from all social classes. This study is limited to the upwardly mobile, by looking at factors which determine college attendance and college choice for those whose parents never attended college. While these analyses point to differential advantage accrued to parenting practices, dependent on socioeconomic status and race, these results only speak to a difference within an already disadvantaged group. While I believe that results from a limited sample with a smaller variation in family income and parent's education may suggest that greater differences would arise when considering the entire socioeconomic spectrum, this remains to be tested in further research.

Furthermore, within this limited sample is a more serious bias, based on the choice of using this particular dataset. While the NLSY79 allows for the information about a child's background to be accessed directly, rather than retroactively, the nature of the survey design means that not all children in the sample have aged into eligibility for my sample (i.e., have left secondary schooling). The sample I use here is limited, therefore, to the children of mothers who were younger than the entire sample, on average. This limits my sample further, and my analyses may be seen as suggestive, rather than strictly representative. Again, however, I believe the strength of this project lies in its differential findings, based on socioeconomic status, even when the variation of socioeconomic in the sample is very limited.

Finally, the measures of parenting practices in particular are somewhat limited. While I would have preferred to use monitoring variables within the analysis, these questions were not available for all survey years. The results that I do present, in regards to parents listening and talking with their children, are contradictory. While three of the four relationships suggest that the advantages of a family democratic model accrue to those in the highest family income quartile or to those whose mother's have graduated from high school, this is not true for attendance at a four year college. These results demonstrate that the relationship between a democratic family model and educational achievement are complex, and deserve further study.

Despite these limitations, this study offers an important examination of the influence of family practices in the study of educational achievement. Many studies of college attendance and choice use family variables as indicators only of socioeconomic status, or as controls to filter out the effects of peers, neighborhoods, or prior achievement. In this paper, I take a

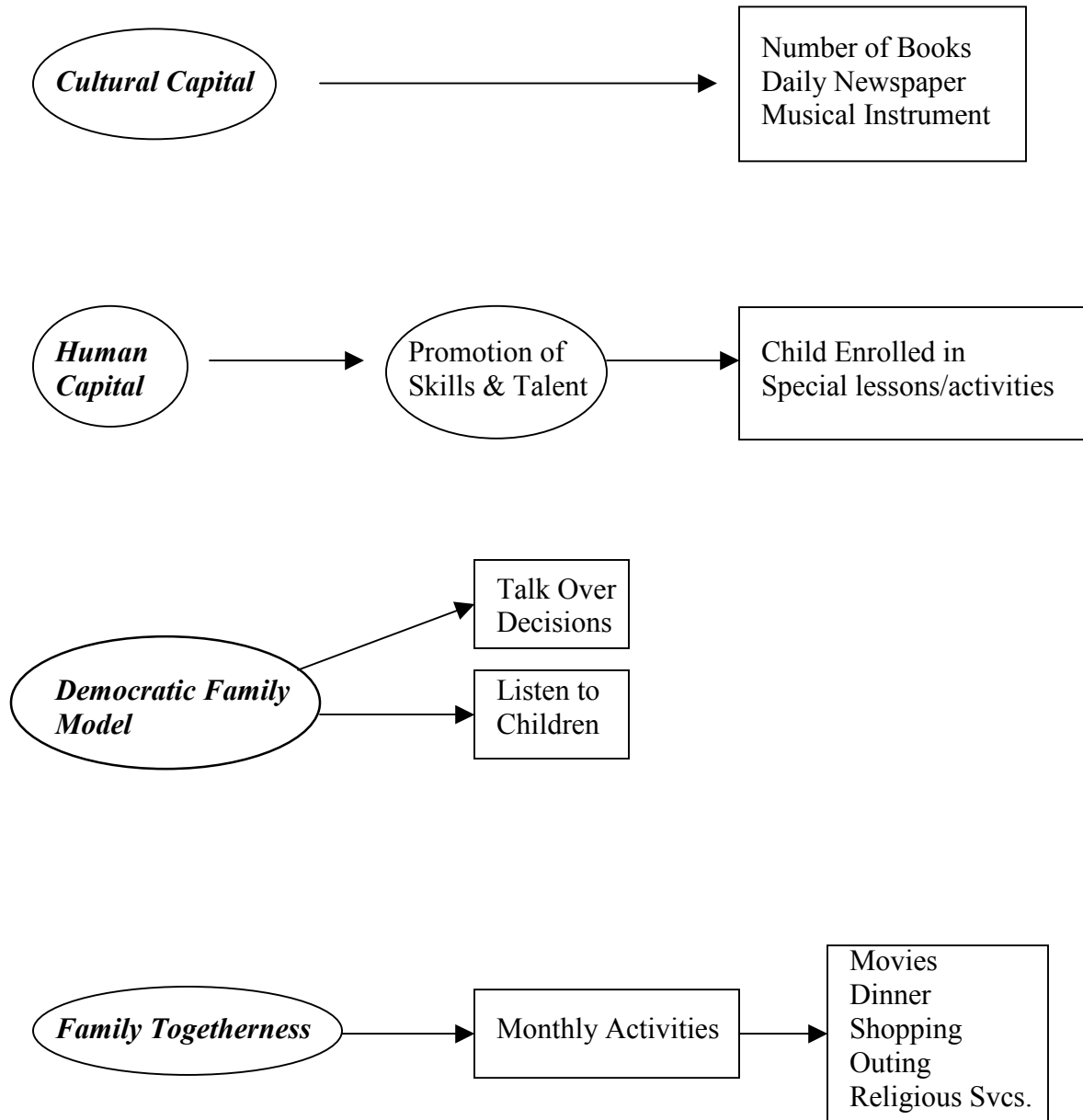
more comprehensive look at the family, exploring the ways in which families may provide resources and support for their children, as well as the ways in which they are constrained by socioeconomic status and race.

Additionally, this study speaks specifically to the experiences of upwardly mobile youth, and the tactics their families may employ in preparing them for academic achievement. In a more diverse sample, these young people would be less likely to go to college than youth whose parents attended college. Inclusion of youth from a wider social class spectrum would mask some of the strategies that less educated parents employ to help their children achieve, despite some considerable disadvantage. This study is valuable in its approach to looking at these young people specifically, and asking how they and their parents might produce strategies for achievement.

Finally, these results suggest that we should be cautious in using static indicators of cultural, social, and human capital in our models of educational attainment. The strength of exposure to certain forms of cultural and social capital is dependent upon the meaning ascribed to those objects, and the context of the social network. Additionally, neighborhood factors and socioeconomic status may condition the influence of particular parenting practices. This is not only important in our consideration of variables to include in models of educational attainment. There is a policy implication as well—many well-meaning policy initiatives arise from studies of parenting practices and their impact on achievement. It is important that these initiatives have information on how their actions may differentially affect individuals.

Studies like these can focus attention on the factors that influence child achievement without moderation.

Appendix A: Diagrams of Variables



Appendix B: Utilizing the Heckman Model

It is fair to ask what bias may result in proceeding with the second and third steps of this study, without controlling for the method in which certain cases were selected into these analyses and others were not. The Heckman two-step selection correction estimation (1976; 1979) offers a solution to this problem. This method assumes that some factors leading to the choice to attend college are unobservable, and therefore the second stage of the analysis has a biased sample. The Heckman correction estimation controls for this bias by including each individual's probability of attending college into the regression analysis estimating college selectivity.

There are three interrelated problems that arise when using the Heckman model to examine college enrollment, however. These problems involve the issues of rational choice, model specification, and multicollinearity. The first issue is theoretical; the Heckman model assumes that the selection step (in this case who does and does not attend college) is based on a discrete choice in which the actor has perfect information and can assess the possible options open to him or her in the future. The model is predicated upon this theoretical assumption, because it assumes that a choice regarding the first step (enrollment) is based on a rational actor's estimation of their potential in the second step (further attainment). In practice, this is rarely the case with college choice—neither option is generally experienced as a concrete step. Most young people express a desire for postsecondary education. Going to college takes place along a series of steps leading to the college application, acceptance, and enrollment. Not going to college can falter along any one of these steps, and may in fact rarely take place as a planned choice.

Precisely because most young people express an aspiration to attend college, and because so many do in fact enroll in a postsecondary institution, the factors predicting enrollment in college are the same as those predicting type of college and college selectivity. This leads to a model specification problem, as the Heckman model requires at least one variable to be different in each step of the selection process. Although this can be easily done in practice, theoretically there is no predictor that can be expected to influence college enrollment, but not further attainment. Choosing a variable at random to include in one step and not another is theoretically indefensible.

Because of the close relationship between predictors of college enrollment and where one attends college, in practice there is a great deal of multicollinearity introduced when using the Heckman two-step selection correction estimation. I attempted several variations of selection equations to produce a probability of attending college. When I included these probabilities into my models of type of college attended, however, a high degree of multicollinearity occurred. Additionally, the results were very unstable, changing substantially depending on my choice of selection model. The instability of results and the theoretical issues involved in defending my use of the Heckman model, therefore, make the more straightforward approach preferable. While this might invite slight biases into the analysis of college type and selectivity, the bias introduced by the Heckman model is far greater in this case.

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